

Pharmaceutical Research Highlights

SCOPE OF THE PROBLEM

Since 1992, the Agency for Healthcare Research and Quality (AHRQ) has funded studies that focused on patient outcomes related to pharmaceutical therapy. Findings from AHRQ research projects have yielded important insights for the health care system. Some key issues revealed by AHRQ research include:

- Prescription and over-the-counter medicines represent a major portion of the health care dollars spent in the United States.
- One of every five non-institutionalized elderly Americans is prescribed an inappropriate medication. Often it is one of 11 medicines that should never be given to older patients.
- Health plans, hospitals, and Federal, State, and local officials are wrestling with questions about which drugs are most effective and how to balance costs with providing the life-saving benefits that medicines offer.

Understanding which medicines work the best for which patients and at what costs, as well as understanding how to administer and monitor medication use in a way that ensures patients' safety, is of critical importance to the health care system.

Impact of AHRQ Research

Findings from AHRQ-funded research have already yielded important insights for doctors, nurses, patients, health plans and hospital administrators. They have also had a positive impact on health policy, clinical practice, and health care outcomes. For example:

Beta-blockers. AHRQ researchers have found that although beta-blockers substantially improve survival in elderly people who have had a heart attack, only one of five patients receive them; thus doubling their risk of death. As a result of AHRQ's research:

- UnitedHealthcare, which represents 7 million commercial members, 430,000 Medicare members, and 500,000 Medicaid members, has made information on the use of beta-blockers a part of its physician education program. As a result, patients are now more likely to receive these drugs.
- The National Committee for Quality Assurance (NCQA), the organization that accredits health plans, has incorporated a new measure on prescribing beta-blockers in the Health Plan Employer Data Information Set (HEDIS). Health plans are using the indicator in their public reports to NCQA, employers, States, and others. Plans are using the indicator as an internal quality improvement tool, as required by NCQA accreditation standards.

Non-steroidal anti-inflammatory drugs (NSAIDs). Elderly nursing home patients with osteoarthritis who were treated with NSAIDs are at greater risk for drug-induced complications and even death. AHRQ researchers developed an educational program for nursing home doctors and staff to treat chronic pain. As a result of AHRQ's research:

- NSAID use was reduced by 70 percent over a 3-month period. This reduced the cost of NSAID treatment by 53 percent.

- Implementation of the educational program could be expected to reduce the risk of gastrointestinal bleeding, other complications, and associated costs from hospitalizations.
- Journal articles published as a result of this research provide guidance to physicians in treating elderly osteoarthritis patients.
- These results have been shared with Tennessee's Medicaid program to improve care for all patients with osteoarthritis.
- An Internet-based, interactive Web site has been developed in conjunction with the American Academy of Pediatrics to teach current guidelines on the treatment of OM.

Pharmaceutical Research Priorities

AHRQ's current program of pharmaceutical research is focused on studies that will continue to examine issues of cost and effectiveness of prescription and over-the-counter medicines. However, this research will also help to address the development of tools for patient management, the needs of racial and ethnic groups and the elderly, and public health and prevention. Examples of on-going programs include:

Centers for Education and Research on Therapeutics (CERTs), a national initiative to increase awareness of the benefits and risks of new, existing, or combined uses of therapeutics, such as pharmaceuticals, through education and research.

Medical Expenditure Panel Survey (MEPS). MEPS collects data on the specific health services that Americans use, including pharmaceuticals, how frequently they use them, the cost of those services, and how they are paid for, as well as data on the cost, scope, and breadth of private health insurance held by and available to the U.S. population.

For More Information

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Inappropriate prescribing of medicines.

Researchers analyzing data from AHRQ's Medical Expenditure Panel Survey (MEPS) found that 20 percent of elderly Americans not living in nursing homes are taking at least one inappropriate medication. As a result of this finding:

- AHRQ and the Department of Health and Human Services (HHS) are supporting research and other efforts to reduce inappropriate prescribing of medicines.
- AHRQ is sponsoring research on new technologies to limit this kind of prescribing error, such as hand-held computers.
- Other AHRQ-sponsored programs are looking at ways to help clinicians become more aware of the benefits and risks of certain pharmaceuticals and possible complications from drug interactions.

Choice and use of antibiotics in children.

A study of children with otitis media (OM) in Colorado's Medicaid program revealed that 30 percent of children were being treated with expensive antibiotic therapy, rather than less costly products, and there was no difference in outcomes. As a result of this AHRQ research:

- Key health policymakers have examined the impact of antibiotic selection and overuse on cost and outcomes of care.
- Guidelines on the use of antibiotics for otitis media were developed and pilot tested in two States.



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